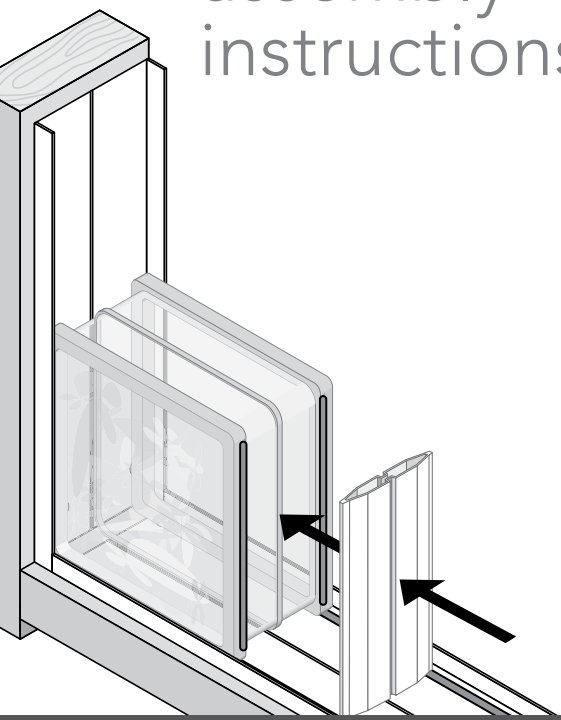
PITTSBURGH CORNING™

Se incluyen las instrucciones en español

ProVantage® Glass Block Installation System

assembly instructions



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ProVantage® Glass Block Installation System
Assembly Instructions

Introduction:

The ProVantage® Glass Block Installation System is the easiest way to install Pittsburgh Corning Premiere Series (4" thick) Glass Block, and get professional results.

ProVantage® I Installation System *(Channel Construction)*:

- This method is used to install straight walls in 4-sided openings.
- In this method, glass block panels are installed in perimeter channel.
- The maximum opening size for exterior panels is 50 square feet.
- The maximum opening size for interior panels is 85 square feet.
- The joints of these panels can be finished with ProVantage® Glass Block Surface Grout or Pittsburgh Corning Glass Block Sealant. Sealant finishing is not recommended for wet environments.

ProVantage® II Installation System *(Anchor Construction)*:

- This method is used to install straight and 90° angled walls and straight walls framed on at least two sides.
- In this method, glass block panels are secured to the wall using special wall anchors.
- The maximum opening size for exterior panels is 50 square feet, framed on all four sides.
- The maximum opening size for interior panels is 85 square feet, framed on at least two sides.
- The joints of these panels can be finished with ProVantage® Glass Block Surface Grout. Sealant finishing can only be used on straight walls in 4-sided openings, and it is not recommended for wet environments.
- All glass block panels are non-load bearing, so adequate provisions must be made for support of construction around the panel.

The materials required for ProVantage® glass block installation are:

- Pittsburgh Corning Premiere Series (4" thick) Glass Block
- ProVantage® Horizontal Spacers
- ProVantage® Vertical Spacers
- Pittsburgh Corning Glass Block Sealant
- ProVantage® Glass Block Surface Grout (grout finish only)
- Grout Sealer (grout finish only)
- #6 x 1" Flat Head Galvanized Screws

ProVantage® I Installation also requires:

- Perimeter Channel
- White Touch-Up Paint

ProVantage® II Installation also requires:

- ProVantage® Anchors
- Expansion Strips (cut to length)

Tools required for installing the glass block are a utility knife, screwdriver, 2-foot level, tape measure, caulk gun, rubber mallet, electric drill, fine tooth saw, spoon shaped finishing tool and razor blade.

For Grout Finishing you will also need a rubber float, bucket, tile/grout sponge, cheesecloth and small paint brush.

ProVantage® I

1. Prepare The Opening

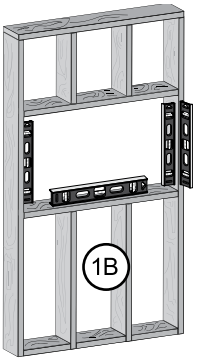
A. Make sure the opening is the correct size.
Use the table below to find the correct dimensions for a straight wall with two jambs using channels.

ProVantage® I
Perimeter Channel Construction
Using 8" High Glass Block

	Rough Opening Width and Height (Inches)		
Number of Blocks	**4"**	**6"**	**8"**
1	4-1/4	6-1/4	8-1/4
2	8-1/8	12-1/8	16-1/8
3	12	18	24
4	15-7/8	23-7/8	31-7/8
5	19-3/4	29-3/4	39-3/4
6	23-5/8	35-5/8	47-5/8
7	27-1/2	41-1/2	55-1/2
8	31-3/8	47-3/8	63-3/8
9	35-1/4	53-1/4	71-1/4
10	39-1/8	59-1/8	79-1/8
11	43	65	87
12	46-7/8	70-7/8	94-7/8

Note: Blocks are available in 4" x 8", 6" x 8", and 8" x 8" sizes

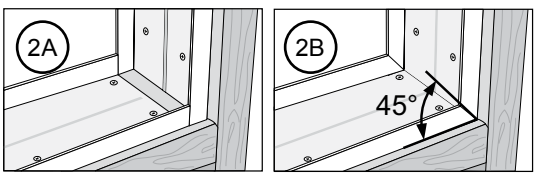
B. Use a level to make sure the opening is level and plumb.



Note: If there are any problems with the opening, adjust it before proceeding.

2. Install Perimeter Channel

A. Cut the channel to fit the perimeter of the opening. The channel ends may be cut straight or mitered.



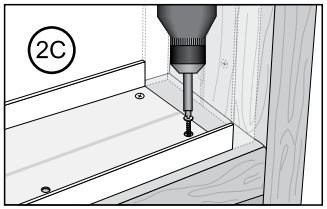
B. Install the bottom channel:

- Apply two 1/4" beads of sealant on underside of channel horizontally 1/2" from both sides. Insert two screws in each end of the channel.

Note: If the predrilled holes at the ends were trimmed off when cutting the channel to length, drill new ones at the ends of the cut piece.

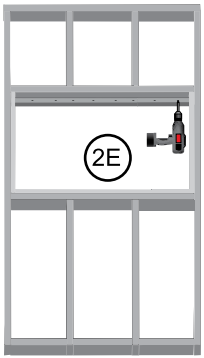
C. Install the side channels in the same manner making sure they are plumb before attaching with screws.

D. Cut the top channel in half lengthwise with a utility knife. Score the center groove with the knife and break the channel in half.



Note: Cutting the top channel in half will allow the top row of blocks to be installed.

E. Install the top channel:
- Place the half channel in the top of the opening making sure it is aligned with the side channels.
- Attach the channel to the opening by inserting #6 x 1" flat head galvanized screws through the predrilled holes in the channel. Insert a screw at each end of the channel.



F. Paint all of the screw heads white to reduce their visibility.

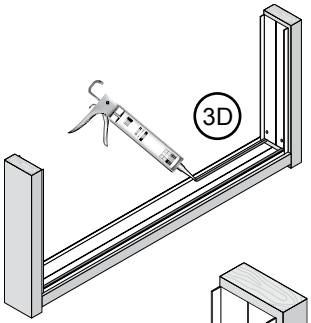
3. Install The First Row

A. Cut the horizontal spacers for each course to fit inside the vertical perimeter channels.

B. Open the sealant as instructed on the tube. Cut the nozzle at a 45° angle at the 1/4" mark.

C. One tube of sealant will install 7 blocks. Sealant will skin over in 15-17 minutes. Do not apply sealant to more blocks than can be installed in 10 minutes.

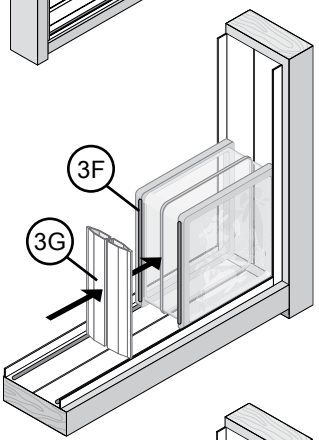
D. In the bottom channel apply two beads of sealant the full length of the channel 1/4" in from each side.



E. Place a glass block in the side channel and slide it into the bottom channel.

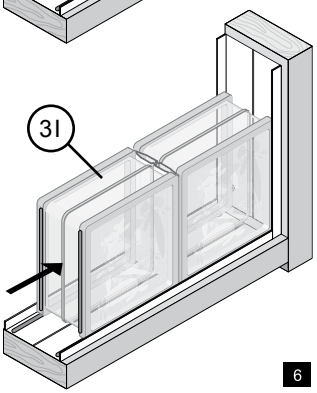
F. Apply two 1/4" beads of sealant behind the raised edge of glass block.

G. Press a vertical spacer into place next to the block.

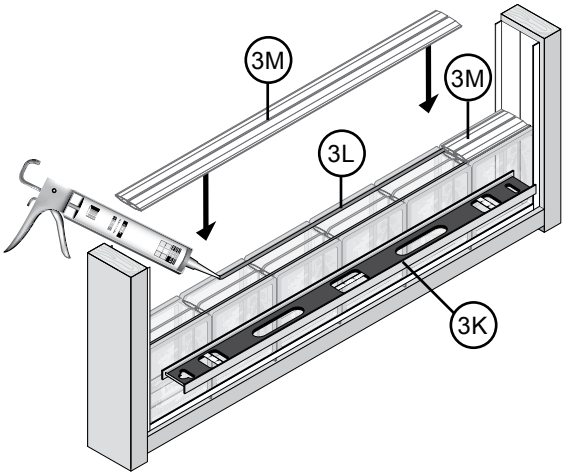


H. Apply two 1/4" beads of sealant behind the raised edge of the next glass block to be inserted.

I. Insert this next block tight against the vertical spacer and apply two 1/4" beads of sealant behind the raised edge of block.



J. Continue inserting spacers and blocks in this manner to complete the row. Do not apply sealant to the side of the last block and last spacer. Insert the last block in the side channel and slide it into the bottom channel.



K. Check the first row for alignment of spacers and blocks. Make sure all the blocks are sitting completely in the channel and the joints are tight.

L. Apply two 1/4" beads of sealant to the top of the row of blocks just behind the raised edges.

M. Place a horizontal spacer on top of the first row of blocks. If more than one section of horizontal spacer is required, be sure to lay them end to end with the joint directly above a vertical spacer. Stagger these joints on each following row.

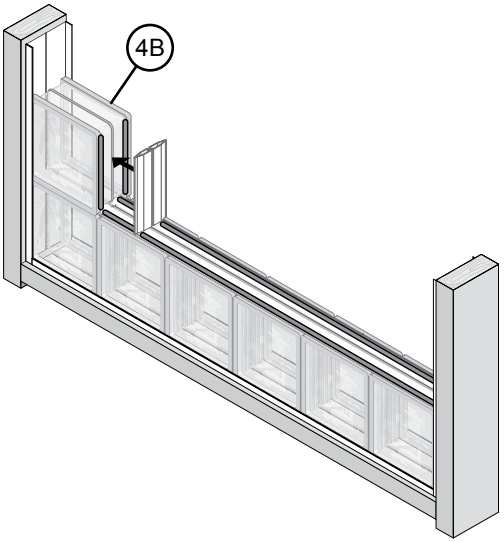
N. Remove any excess sealant. If necessary, adjust the size of the sealant beads to prevent squeeze out on the following rows. The joint areas must be kept clean of sealant.

4. Install The Second Through Next To Last Row

A. Apply two 1/4" beads of sealant to the edges of the horizontal spacer, 1/4" in from edge of spacer.

B. Install the second row:

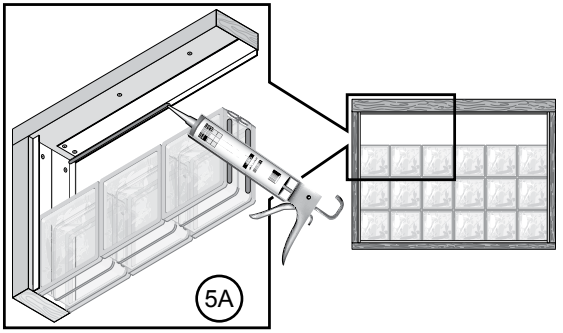
- Start the row from the opposite end. For example, if you installed the first row from left to right, install the second from right to left.
- Continue to install blocks and vertical spacers with sealant as illustrated.



C. Install the remaining rows in this manner until you reach the last row. Check each row for alignment vertically and horizontally.

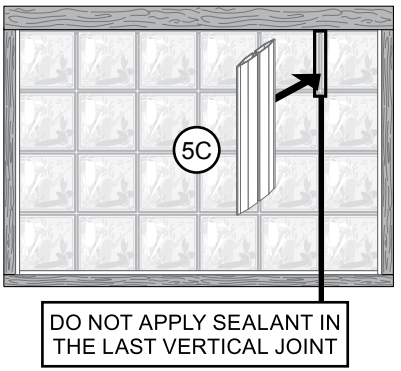
5. Install The Last Row

A. Apply a 1/4" bead of sealant horizontally along the top inside leg of the half channel at the top of the opening, where the faces of the blocks will contact the channel.

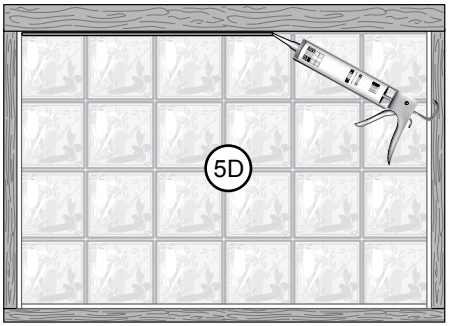


B. Slide one block with sealant applied into the right jamb and one block into the left jamb.

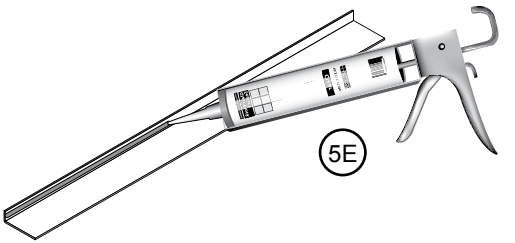
C. Install the remaining blocks in the same manner as before, except do not apply sealant in the last vertical joint. Insert the last spacer after installing the last block.



D. Apply a 1/4" bead of sealant horizontally across the top of the opening 1/2" from the face of the glass blocks. This sealant line will be used to secure the second half of the top channel.



E. Apply a 1/4" bead of sealant along the top inside leg of the second half channel.



F. Slide the half channel into place between the blocks and the top of the opening. If necessary, temporarily apply a piece of tape to the channel to hold it in place until the sealant sets.

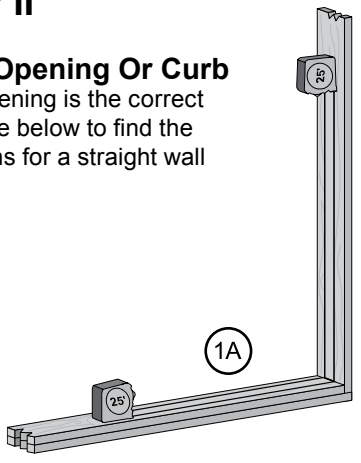
G. Wait 24 hours before finishing the joints to allow the sealant to cure.

***Note*: Please go to page 18 for joint finishing instructions to complete your project.**

ProVantage® II

1. Prepare The Opening Or Curb

A. Make sure the opening is the correct size. Use the table below to find the correct dimensions for a straight wall with two jambs.



ProVantage® II
Wall Anchor Construction
Using 8" High Glass Block

	Rough Opening Width (Inches)			Rough Opening Height (Inches)
Number of Blocks	**4" Block Width**	**6" Block Width**	**8" Block Width**	**8" High Block***
1	4-1/4	6-1/4	8-1/4	8-1/2
2	8-1/8	12-1/8	16-1/4	16-1/8
3	12	18	24-1/8	23-7/8
4	15-7/8	23-7/8	32	31-7/8
5	19-3/4	29-3/4	39-7/8	39-3/4
6	23-5/8	35-5/8	47-5/8	47-1/2
7	27-1/2	41-1/2	55-1/2	55-1/2
8	31-3/8	47-3/8	63-1/4	63-1/4
9	35-1/4	53-1/8	71-1/8	71-1/8
10	39-1/8	59	79	79
11	43	64-7/8	86-7/8	86-7/8
12	46-7/8	70-3/4	94-3/4	94-7/8

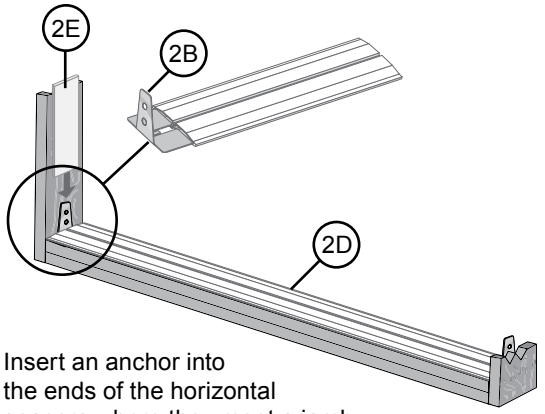
***Note: 4" x 8", 6" x 8", and 8" x 8" blocks are all nominally 8" high.*

B. If installing glass block with angled wall sections follow these steps:

- For walls with angles it is recommended that you layout your wall before constructing a curb.
- Make sure the angled sections of your opening or curb are configured correctly.
- The curb must be as wide as, or wider than, the glass block thickness (4" or wider).
- Apply finish material to the curb. The curb will be visible through the glass blocks. If installing the glass blocks in a wet environment, take steps to ensure that the curb is waterproof.
- Use a level to make sure the opening is level and plumb.
- If there are any problems with the opening or curb, adjust it before proceeding.

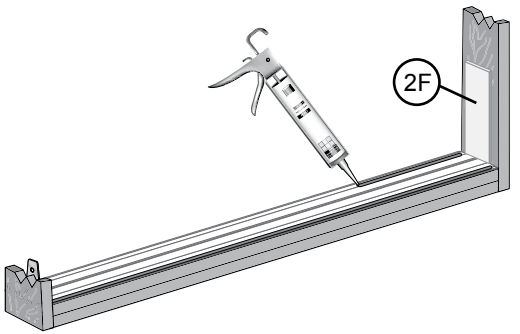
2. Install The Anchors

A. Cut the horizontal spacers for each course to fit the opening.



B. Insert an anchor into the ends of the horizontal spacers where they meet a jamb.

C. Apply two 1/4" beads of sealant to the edges of the horizontal spacers 1/4" in from edge of spacer. Place spacer sealant side down.



D. Then apply two 1/4" beads of sealant to this same horizontal spacer, 1/4" in from edge of spacer.

E. Attach anchor to jamb with screws. Cut expansion strip to 7-1/2" length (for 8" high glass block).

F. Place expansion strip over the anchor and against the jamb.

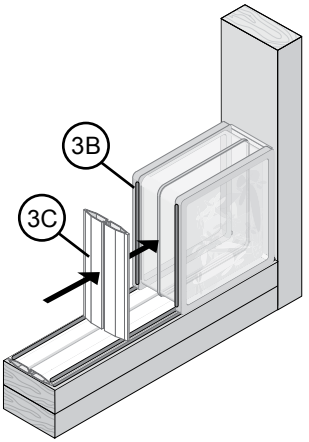
3. Install The Glass Block

A. Place a glass block in the opening against jamb.

B. Apply two 1/4" beads of sealant behind the raised edge of glass block.

C. Press a vertical spacer into place next to the block.

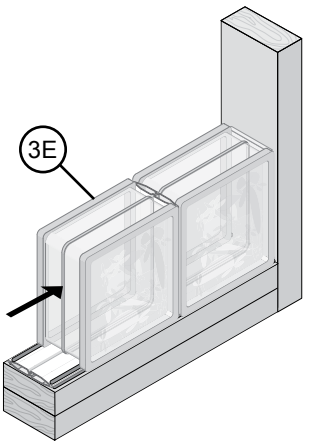
D. Apply two 1/4" beads of sealant behind the raised edge of the next glass block to be inserted.



E. Insert this next block tight against the vertical spacer and apply two 1/4" beads of sealant behind the raised edge of block.

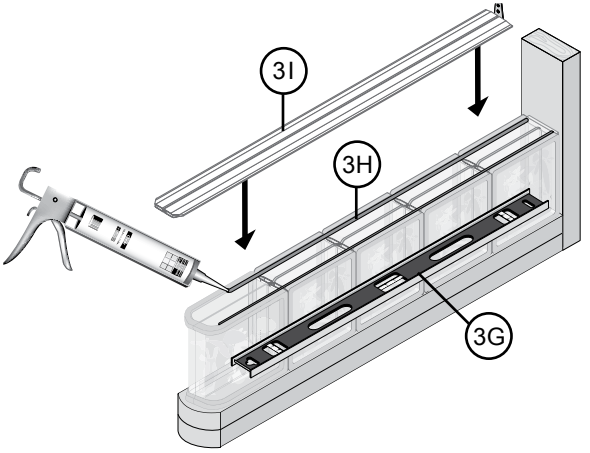
F. Continue inserting spacers and blocks in this manner to complete the row.

G. Check the first row for alignment of spacers and blocks. Make sure all the blocks are level and the joints are tight.



H. Apply two 1/4" beads of sealant to the top of the row of blocks just behind the raised edges.

I. Place a horizontal spacer with anchors installed on top of the first row of blocks. If more than one section of horizontal spacer is required, be sure to lay them end to end with the joint directly above a vertical spacer. Stagger these joints on each following row.



J. Remove any excess sealant. If necessary, adjust the size of the sealant beads to prevent squeeze out on the following rows. The joint areas must be kept clean of sealant.

K. Install the remaining rows of glass blocks, spacers, anchors and expansion strips in this manner. Check each row for alignment.

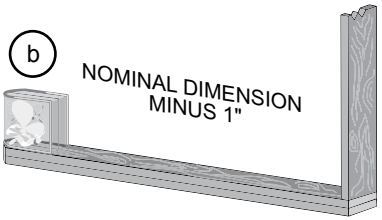
NOTES:

For Straight Blocks and Finishing Units

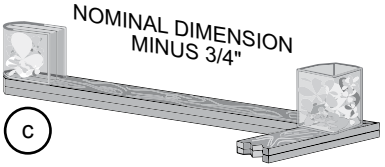
a. For walls with angles it is recommended that you layout your wall before constructing a curb.

Note: If it is necessary to have a joint in the horizontal spacer, to extend it to fit the width of the section, make sure the joint will align with a vertical spacer. Stagger these joints on each following row.

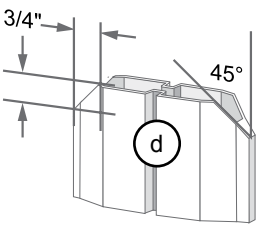
b. For straight sections between one jamb and an EndBlock™, cut the horizontal spacer 1" shorter than the nominal dimension.



c. For straight sections between a shaped block and an EndBlock™, cut the horizontal spacer 3/4" shorter than the nominal dimension.



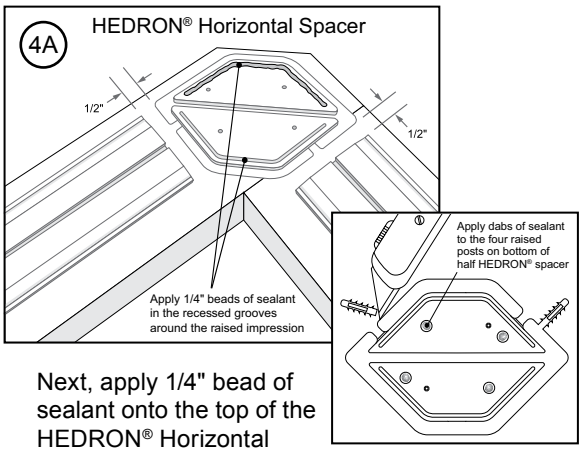
d. For EndBlock™, trim the end of the spacer to fit the shape by cutting the two corners at a 45° angle 3/4" from each corner.



4. When Installing HEDRON® Corner Block for a 90° Angle Wall Section:

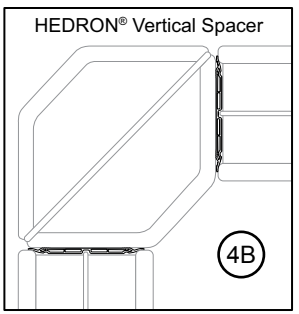
A. 90° angled wall sections:
For the first row, use a half HEDRON® horizontal spacer. Remove the barbed tabs and apply 4 dabs of sealant to the protruding posts on the bottom of the half HEDRON® spacer as shown in the inset drawing below. Attach it to the opening with sealant side down and centered under the HEDRON® block location. There should be a 1/2" gap between straight sections of spacer and the shaped spacer.

For all other rows, use a whole HEDRON® horizontal spacer.


4A
HEDRON® Horizontal Spacer
1/2"
1/2"
Apply 1/4" beads of sealant in the recessed grooves around the raised impression
Apply dabs of sealant to the four raised posts on bottom of half HEDRON® spacer

Next, apply 1/4" bead of sealant onto the top of the HEDRON® Horizontal Spacer and place HEDRON® Corner Block on spacer.

B. The vertical spacers for HEDRON® blocks are flat. See diagram for proper placement of vertical spacers. These vertical spacers should be installed by putting a 1/4" bead of sealant on the side that will be attached to a glass block.



Grout Finishing

<u>IMPORTANT:</u> The ProVantage® Surface Grout was designed and tested for this application - DO NOT SUBSTITUTE!

<u>CAUTION:</u> Avoid contact with skin. Safety glasses and impervious gloves are recommended to minimize skin and eye contact.

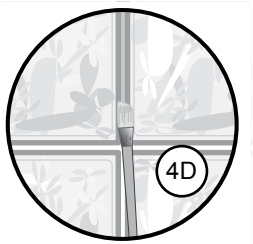
Do not finish the joints until sealant has cured for 24 hours.

A. Remove any sealant squeezed out from the joints with a utility knife.

B. Follow directions on the ProVantage® Surface Grout container for grout application.

C. Grout is applied between glass blocks only, not at perimeter.

D. For applications in wet environments, wait 72 hours and apply sealer to the grout lines with a paint brush. Immediately wipe sealer off glass surfaces to prevent it from adhering to the glass.



E. Apply a second coat of sealer once the first coat is dry.

F. After the grout has cured for 72 hours, caulk all perimeter joints with a bead of sealant.

Sealant Finishing of Exterior Joints

<u>IMPORTANT:</u> Not recommended for shower applications.

<u>CAUTION:</u> Avoid contact with skin. Safety glasses and impervious gloves are recommended to minimize skin and eye contact. Provide sufficient mechanical ventilation.

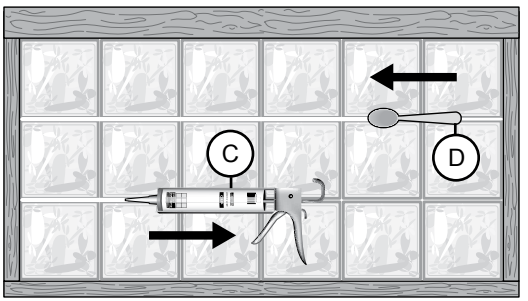
Do not finish the joints until sealant has cured for 24 hours.

Note: If you are installing blocks in a moist environment or if your wall is not framed on all four sides, grout finish is recommended.

A. Remove any sealant squeezed out from the joints with a utility knife.

B. Open the sealant as instructed on the tube. Coverage rate is one tube per 16 blocks. Do not seal more joints than you can tool in 15 minutes.

C. Seal the horizontal joints first by placing the nozzle of the tube in the joint at the perimeter on a 45° angle. Pull the tube along the joint while laying a bead of sealant. Slightly overfill the joints.



D. Push the spoon shaped finishing tool over the joints at a 45° angle to collect the excess sealant and seal the joint. Periodically wipe the sealant from the finishing tool.

E. Seal the vertical joints in the same manner. Carefully work the joint intersections to create a smooth finish.

F. Let the sealant cure for 48 hours before putting any stress on the panel.

G. Seal the perimeter joints with sealant.

Maintenance

An important part of the functional beauty of Pittsburgh Corning Glass Block products is that they are virtually maintenance free! There's nothing to rot, rust, peel or paint. All that is needed is an occasional wiping with a damp, soft cloth on interior panels or a hosing on exterior panels. With minimal attention, your Pittsburgh Corning Glass Block will remain sparkling and beautiful for years!

If you need assistance

We hope these instructions are clear and answer your questions about the installation of Pittsburgh Corning Premiere Series Glass Blocks and Finishing Units with the ProVantage® Glass Block Installation System. For additional information on Pittsburgh Corning Glass Block visit our website at **www.pittsburghcorning.com** or call **1-800-624-2120.**

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